TESTIMONY OF
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I. INTRODUCTION

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity today to testify on our nation's successes under the Clean Air Act and the work that remains to be done to achieve clean, healthful air throughout America.

More than a dozen years ago, President George Herbert Walker Bush proposed an Administration bill that became the foundation of the Clean Air Act Amendments of 1990. The final legislation passed both the House and Senate with overwhelming bipartisan support, and set challenging goals for reducing air pollution that we are still striving to meet today. The former president, in a Smithsonian exhibit on the presidency, names the 1990 Amendments as one of the three accomplishments of which he is most proud.

And indeed, the 1990 amendments have achieved impressive health and environmental benefits. Since the legislation was enacted, this nation has made great progress in reducing acid rain, meeting health-based air quality standards, protecting the stratospheric ozone layer, and cutting toxic air pollution. Yet we still face major challenges to achieve healthful air, a cleaner environment, and clear skies for all Americans.

In my statement today, I will describe the results we've achieved through Clean Air Act programs enacted to protect public health and environmental quality. I will discuss the tools used to achieve results - - what worked and why. One of the most important lessons from the 1990 amendments is how powerful a tool cap-and-trade programs can be for protecting health and the environment. Finally, I will talk about remaining air quality challenges that we face today and our future direction.

II. PROGRESS TOWARD CLEAN AIR

Our progress on cleaning up the air demonstrates that strong economic growth and a cleaner environment can go hand-in-hand. Since the basic structure of today's Clean Air Act was enacted in 1970, we have reduced emissions of six key air pollutants by 30 percent. At the same time, the economy has grown substantially. The Gross Domestic Product increased 160%; vehicle miles traveled increased 145%; energy consumption increased 45%; and the U.S. population increased 35%. This success story was made possible by American ingenuity spurred in large part by legislation that recognized the importance of a clean environment.

Our strong economy has helped us provide cleaner air, which has provided important public health and environmental benefits that far outweigh the costs. For example, lead levels in ambient air are 98% lower than in 1970, greatly reducing the number of children with IQs below 70 as a result of dirty air. The benefits from the programs in the 1990 Amendments alone are impressive. A peer-reviewed EPA study estimates that upon full implementation in 2010, the Clean Air Act programs signed into law by former President Bush will avoid tens of thousands of premature deaths, tens of thousands of cases of acute and chronic bronchitis, tens of thousands of respiratory-related and cardiovascular hospital admissions, and millions of lost work days, among other benefits.

To appreciate how far we have come in reducing air pollution, it is instructive to remember where we were before the 1990 amendments. Acid rain essentially was unchecked, causing damage to aquatic life, forests, buildings and monuments, as well as visibility degradation and health risks from sulfate and nitrate particles. There was growing concern about the increasing damage to the stratospheric ozone layer, which, among other things, protects us from skin cancer and cataracts. In 1990, photochemical smog, which can impair lung function, cause chest pain and coughing, and worsen respiratory diseases and asthma, exceeded healthy levels in 98 metropolitan areas. Many cities did not meet the national air quality standards for the pollutant carbon monoxide, which can aggravate angina (heart pain), and also for particulate matter, which is linked to premature death, aggravation of pre-existing respiratory ailments, and reductions in lung capacity. The millions of tons of hazardous air pollutants emitted annually in the United States were largely unregulated at the federal level. Many of these pollutants have the potential to cause cancer or other serious health effects such as nervous system damage.

Since then, the 1990 Amendments have enabled us to substantially reduce each of the major air pollution problems that faced the United States:

- Annual sulfur dioxide emissions, which react to form acid rain and contribute to fine particle formation, have been cut by more than 6.7 million tons, and rainfall in the eastern U.S. is as much as 25 percent less acidic.

- Production of the most harmful ozone-depleting chemicals has ceased in the U.S. and --

provided the U.S. and the world community maintain the commitment to planned protection efforts -- the stratospheric ozone layer is projected to recover by the mid 21st century.

- Ground-level ozone pollution, particulate matter, and carbon monoxide pollution have all been reduced significantly, producing dramatic decreases in the number of areas in nonattainment.

- Rules issued since 1990 are expected to reduce toxic emissions from industry by nearly 1.5 million tons a year – a dozen times the reductions achieved in the previous 20 years. Other rules for vehicles and fuels will reduce toxics by an additional 500,000 tons a year by 2020.

Reducing Acid Rain

The 1990 Amendments created the Acid Rain Program, calling for major reductions in electric generating facilities' emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) , the primary pollutants that cause acid rain. The Acid Rain Program has been a resounding success, and at a much lower cost than first expected. The centerpiece of the program is an innovative, market-based "cap-and-trade" approach to achieve a nearly 50% reduction in SO2 emissions from 1980 levels.

The results of the program have been dramatic – and unprecedented. Compliance with the Acid Rain Program began in 1995 and is now in its eighth year. From 1995-1999, the first phase of the Acid Rain Program, annual SO2 emissions from the largest, highest-emitting sources dropped by nearly 5 million tons from 1980 levels. These significant reductions were an average of 25% below required emission levels, resulting in earlier achievement of human health and environmental benefits.

In 2001, the SO2 emissions from power generation were more than 6.7 million tons below 1980 levels. NOx emissions have been reduced by 1.5 million tons from 1990 levels by a more traditional rate-based program (about 3 million tons lower than projected growth). Because the NOx component of the program is rate-based, however, there is no guarantee that NOx emissions will stay at these low levels; without a NOx cap, emissions will increase as power generation increases.

Through the hard work of several federal agencies that maintain interagency environmental monitoring networks (e.g., the National Oceanic and Atmospheric Administration, United States Geological Survey, U.S. Forest Service, National Park Service and EPA) -- we know that these emissions reductions are delivering impressive environmental results. Due to the drop in SO2 emissions, rainfall acidity in the eastern United States has dramatically improved, measuring up to 25% less acidic. As a consequence, some sensitive lakes and stream in New England are showing the first signs of recovery. Further, ambient sulfate concentrations have been reduced, leading to improved air quality and public health, with fewer respiratory illnesses such as asthma and chronic bronchitis. Moreover, the air is clearer, particularly in areas where some of our most scenic vistas are found, such as the Shenandoah National Park.

These emissions reductions and environmental results have been achieved at a much lower cost than anyone expected. In 1990, EPA projected the full cost of implementation of the SO2 emission reductions would be about $5.7 billion per year (1997 dollars). In 1994, GAO projected the cost at $2.3 billion per year (1997 dollars). Recent estimates of annualized cost of compliance are in the range of $1 to 1.5 billion per year at full implementation.

The cost-effectiveness of the program is tied to the design features of the innovative cap-and-trade approach. The Acid Rain Program was designed to provide certainty that emissions reductions would be achieved and sustained while at the same time allowing unprecedented flexibility in how to achieve the needed emission reductions. This stimulates the use of a variety of emission reduction options, such as fuel switching, installation of control equipment, use of efficiency measures and renewables, and trading among sources. Because the market system places a monetary value on avoided emissions, compliance has stimulated tremendous technological innovation, including efficiency improvements in control technology.

When the Acid Rain Program was designed in the early 1990s, some were concerned about the potential effect of emissions trading on local air quality. Now, in the eighth year of the program, we know that flexibility under the Acid Rain Program has not adversely affected attainment of air quality standards. Independent analyses of the program demonstrate that trading has not created "hotspots," or increases in localized pollution. In fact, the greatest SO2 emissions reductions were achieved in the highest SO2-emitting states, acid deposition decreased and, consistent with projections, the environmental benefits were delivered in the areas where they were most critically needed.

The environmental integrity of the Acid Rain Program also can be traced to design features of the approach. The program was developed with unprecedented levels of accountability and transparency. Sources must continuously monitor and report all emissions, ensuring accurate and complete emissions information. All data are publicly available on the internet, providing complete transparency and the public assurance necessary for program legitimacy. Remarkably, sources have registered nearly 100% compliance.

Because of the unprecedented success of the Acid Rain Program, it has served as the model for numerous additional programs to reduce emissions cost-effectively in this country and around the world, including the President's recently proposed Clear Skies Initiative.

Meeting Health-Based Air Quality Standards

Overview

The air in our nation is considerably cleaner than in 1990. Under the Act, EPA has set health-based national ambient air quality standards (NAAQS) for six common pollutants. Nationally, the 2000 average air quality levels were the best in the last 20 years for all six pollutants -- lead, nitrogen dioxide, sulfur dioxide, particulate matter, carbon monoxide and ozone.

Since 1990, an unprecedented number of cities have met the health-based national ambient air quality standards. In fact, more than two-thirds of the areas designated as nonattainment following the 1990 amendments now have air quality meeting those standards based on 1998-2000 data, including:

- 41 of the 43 carbon monoxide areas
- 69 of the 85 coarse particulate matter (PM-10) areas
- 71 of the 101 ozone areas (one-hour standard)

While air quality improved, the economy showed robust economic growth, increasing 37 percent between 1990 and 2000.

In 1997, based on updated scientific information, EPA set a new standard for fine particles and a revised, 8-hour standard for ozone that is more stringent than the one-hour standard. We have made great progress working with states to get monitoring systems in place for fine particulate matter, or PM 2.5. Many areas across the eastern U.S. and in California appear to have pollution levels exceeding the 1997 standards.

For the other common pollutants, only a few areas remain in nonattainment. The remaining lead and sulfur dioxide nonattainment areas in the country are the result of localized point sources for which action on an individual basis is being taken. Since 1998, all cities have met the air quality standard for nitrogen dioxide.

Ongoing work to combat ozone pollution

The Clean Air Act gives states the primary responsibility for meeting national air quality standards by developing and implementing state implementation plans (SIPs). EPA assists states by providing guidance, setting national emissions limits for sources such as motor vehicles, and requiring control of upwind sources that contribute to downwind problems in other states.

During the past two years we have reached a major milestone in cleaning up smog in many of our nation's largest cities. In the Northeast, Midwest and South, states have completed plans for attaining the 1-hour ozone standard in all of the metropolitan areas that have pollution levels considered serious or severe under the Act. EPA has fully approved all but one of these plans. The approved plans are for New York City, Springfield, Mass., Greater Connecticut, Baltimore, Philadelphia, Milwaukee, Chicago, Houston and the District of Columbia. EPA has proposed approval of Atlanta's attainment plan. In the near future, we expect to see additional control measures for New York City, Baltimore, Philadelphia and Houston as the states fulfill commitments in their attainment plans.

Houston's ozone attainment plan was developed by the Texas Natural Resources Conservation Commission in partnership with the Mayor of Houston, stakeholders and EPA's Region 6 office.

Approved by EPA in October 2001, the plan includes many ambitious and innovative measures. These include a cap-and-trade program setting some of the nation's most stringent limits on NOx emissions from industry, a fund to accelerate use of cleaner off-road and on-road diesel engines, cleaner diesel fuel, and voluntary measures to reduce transportation emissions. The plan also contains an enforceable commitment to adopt newly emerging strategies needed to cover an estimated shortfall in emissions reductions needed for attainment by the end of 2007. Under a consent decree, the state, in conjunction with industry and academia, is conducting an accelerated review of ozone formation in Houston's skies to consider whether adjustments in the SIP are needed.

Interstate transport of ozone and NOx, an ozone precursor, is a major contributor to the ozone nonattainment problems across the eastern United States. No state can solve this problem on its own.

As a result, EPA has issued two complementary rules -- the NOx SIP Call and the Section 126 rule -- in a combined Federal/state action to reduce interstate ozone transport. The effect of the two rules together is to require NOx reductions in 19 states and the District of Columbia. EPA anticipates that full implementation of these rules will reduce total ozone-season NOx emissions from power plants and large industrial sources by approximately one million tons by the 2007 ozone season. This is essential for many of the remaining ozone nonattainment areas to meet the one-hour standard, and will greatly reduce the number of areas exceeding the more-stringent 8-hour standard.

The NOx SIP Call, which sets emissions budgets for states, and the Section 126 rule, which applies directly to power plants and large industrial sources, both allow for implementation through a market-based cap-and-trade program that allows facilities to choose the most cost-effective means of reducing their pollution. All of the states subject to the NOx SIP Call plan to use the cap-and-trade approach.

EPA's reliance on existing CAA authorities for addressing ozone transport is working, but three major lawsuits by some states and corporations have delayed implementation. EPA issued the original NOx SIP call rule in 1998. Both the SIP Call and the subsequent Section 126 Rule set a May 2003 compliance date. However, one court ruling delayed the NOx SIP call compliance date until May 31, 2004. A second court ruling stopped the compliance clock for electricity generators subject to the Section 126 Rule while EPA responded to concerns the court raised with heat input (fossil-fuel-use) projections for electricity generators, which EPA used in calculating emissions budgets for the two rules. As a result, the two rules were no longer synchronized.

Administrator Whitman on April 23 signed a rule once again harmonizing the compliance dates of the two rules at May 31, 2004. This will facilitate withdrawal of the federal Section 126 program in states that meet the requirements of the SIP Call Rule, and help to avoid potential overlap of the two programs. The Administrator also signed a notice that explains EPA's decision to retain the original heat input projections. In a separate action, EPA recently issued a proposed "phase II" rule responding to other issues from court decisions on the SIP call and Section 126 rules.

Cutting Transportation Emissions

In general, transportation sources contribute roughly half of the overall pollution in our air. The contribution, however, can vary significantly from pollutant to pollutant and from city to city. Note that when I refer to transportation sources I mean all highway motor vehicles as well as diverse types of off-road vehicles and engines. They are major sources of four pollutants, contributing 56 percent of the total U.S. emissions of NOx, 77 percent of CO, 47 percent of VOCs, and 25 percent of the PM.

Cleaner Vehicles

Cars being built today are well over 90 percent cleaner than cars built in 1970. This is a result of a series of emission control programs implemented by EPA through nationally applicable regulations. Since the first tailpipe standards took effect in the 1970's, there have been increasingly more stringent standards; most recently Tier 1 in the mid-90's; the National Low Emission Vehicle (NLEV) Program, which is in effect today; and Tier 2 standards set to take effect beginning with the 2004 model year. In the Tier 2 standards and most other national vehicles and fuels rules issued since 1990, EPA has provided compliance flexibility through emissions averaging and trading systems.

Tier 2 will take a major step toward reconciling passenger vehicles with clean air. For the first time it holds SUVs, minivans and pick-up trucks to the same emission requirements as autos. Tier 2 is also fuel neutral, which means that gasoline, diesel and alternative fueled vehicles all must meet the same set of standards. Tier 2 is cost effective and its benefits to public health are large – by 2020, over two million tons of NOx emissions avoided per year, 4,000 premature deaths prevented annually and tens of thousands of respiratory illnesses prevented.

Most large trucks and buses are powered by diesel engines. They can emit high levels of NOx and PM. Although cars were regulated first, diesel truck and bus manufacturers have had to comply with a series of increasingly more stringent standards beginning in the late 1980's. This Administration has affirmed and is supporting a major new program that has recently been established to protect public health and the environment while ensuring that diesel trucks and buses remain a viable and important part of the Nation's economy. Called the Clean Diesel Program, it begins in 2007, when the makers of diesel engines will for the first time install devices like catalytic converters on new trucks and buses to meet the emission performance standards. The environmental benefits of this program will be substantial. When these cleaner vehicles have replaced the current fleet, 2.6 million tons of NOx emissions will be avoided every year, 8,000 premature deaths prevented annually, and 23,000 cases of bronchitis and 360,000 asthma attacks. These health benefits far outweigh the cost to produce the cleaner engines and fuels.

The Clean Diesel Program will reduce emissions only from newly produced engines. But there are millions of older diesel trucks, buses and off-road equipment in use today, many of which spew noxious, black soot from their exhaust pipes. EPA has therefore initiated, in cooperation with manufacturers of diesel emission control systems, a major new voluntary initiative to install cost effective emission control equipment on older diesels. Through this innovative program, the Diesel Retrofit

Program, the Agency to date has obtained commitments from businesses and municipalities that own fleets of trucks or buses to retrofit 75,000 vehicles with devices that will reduce exhaust emissions.

Of course, motorists share responsibility to maintain their vehicles properly. Inspection and maintenance (I/M) programs, currently operating in 56 metropolitan areas, are meant to identify polluting vehicles and lead to their repair. Today many states are re-structuring their I/M programs to efficiently incorporate the capabilities of so-called "onboard diagnostic (OBD) systems" that use the vehicle's onboard computer to speed the testing process, provide specific information to the technician to help get repairs done correctly, and maintain or improve the air quality benefits of an I/M program.

Cleaner Fuels

Let me now switch from cleaner vehicles to cleaner fuels. The first effort to address an environmental problem linked to fuel was the multi-year effort to phase down and eventually eliminate lead in gasoline. That successful action was followed by other programs to require oil refiners to produce cleaner gasoline. In the late 1980's refiners began to reduce the evaporation rate of gasoline nationwide during the summer months.

The 1990 amendments to the Clean Air Act established several new clean fuel programs. Much of the nation's progress on carbon monoxide can be attributed to the wintertime oxygenated fuels program, which began in 1992 in 30 cities. The 1990 amendments also established the reformulated gasoline (RFG) program, which was designed to serve several goals, including improving air quality and extending the gasoline supply through the use of oxygenates. Today, roughly 35 percent of this country's gasoline consumption is cleaner-burning RFG. The emission reductions which can be attributed to the RFG program are equivalent to taking 16 million cars off the road.

In two of the programs I mentioned earlier, Tier 2 and the 2007 Clean Diesel Program, EPA recognized the efficiencies of addressing vehicles and fuels as a system when establishing an emissions control program. Thus, in addition to setting strict exhaust emission standards for the vehicles and engines, we also required that cleaner, low sulfur gasoline and diesel fuel be available to enable those emission standards to be achieved. Sulfur is similar to lead in that it degrades the effectiveness of a catalytic converter. This lower sulfur gasoline will reduce emissions from all gasoline-powered highway vehicles, not just those meeting the tighter vehicle emissions standards. The Tier 2 and diesel regulations provide sufficient time for refiners to make the necessary modifications to their facilities before the low sulfur fuel is required. EPA has included a number of provisions that provide additional flexibility to refiners, particularly small refiners.

Off-Road Engines

As emissions from highway vehicles are reduced, the potential for reductions from other sources must be evaluated. Therefore, in 1990 Congress gave EPA new authority to set emission limits for off-road engines and equipment. As a result, EPA has adopted emission control programs for the following off-road equipment: locomotives, marine vessels, outboard recreational boats, and small gasoline engines used in lawn and garden equipment.

The next major category of mobile source emissions to be addressed is large diesel engines used in construction, mining, airport and agricultural equipment. Even though modest emission requirements are in place for this equipment, EPA currently estimates that by 2020 the category will contribute over 10 percent of the total NOx emissions inventory in a typical metropolitan area and 8 percent of the PM emissions. One of the major issues that needs to be considered is the potential need to lower the sulfur levels in off-road diesel fuel to enable new exhaust control technology to be utilized on future engines. As we found with highway vehicles, this approach of comprehensively looking at the engines and fuel as a system is appropriate here as well. EPA currently is working on a draft proposed rulemaking.

Protecting the Stratospheric Ozone Layer

EPA's Stratospheric Ozone Protection Program has played a landmark role in addressing one of the most pressing environmental issues of our time -- the depletion of the ozone layer. We can say with certainty and pride that our effort in the United States to protect the ozone layer is on track toward unqualified success. With the successful worldwide phaseout of ozone depleting substances, EPA estimates that 6.3 million U.S. lives will have been saved from fatal cases of skin cancer between 1990 and 2165, and that up to 300 million cases on non-fatal skin cancer and approximately 30 million incidences of cataracts will have been avoided.

To date, international cooperation to implement the Montreal Protocol on Substances that Deplete the Ozone Layer has led to global reductions in the production and use of ozone depleting substances (ODS), the results of which we can already see. Developed country production of CFCs, methyl chloroform, and carbon tetrachloride essentially ended, except for limited exemptions permitted under the Montreal Protocol, thus avoiding emissions of 400,000 metric tons of ODS. Developing countries as a whole are ahead of schedule in reducing their production, use, and emissions of ODS.

If the world community stays the course, we can expect to see the ozone layer recover in approximately 50 years. The prospect of identifying and solving a global environmental problem of this magnitude, within the span of a single lifetime, is nothing short of amazing. Let me tell you about the success we have had here and abroad.

Here at home, the U.S. is doing its part to ensure the recovery of the ozone layer. Working closely with industry, EPA has used a combination of regulatory, market based (i.e., a cap-and-trade system among manufacturers), and voluntary approaches to phase out the most harmful ozone depleting substances (ODSs). And we're doing so more efficiently than either EPA or industry originally anticipated. The ODS phaseout for Class I substances was implemented 4-6 years faster, included 13 more chemicals, and cost 30 percent less than was predicted at the time the 1990 Clean Air Act Amendments were enacted.

The U.S. has not only "taken care of business" at home but has also played a key leadership role internationally. Through the Multilateral Fund set up under Presidents Reagan and Bush, the U.S.

has led the effort toward long term agreements to dismantle more than two-thirds of developing country CFC production capacity and eliminate virtually all of developing country halon production capacity. Sales of US technologies, such as recycling, air conditioning, and refrigeration equipment and about $80 million per year of sales of alternatives to ozone depleting substances have played an important role in this worldwide progress. While the final closing of related facilities depends on continued funding, we are confident that through continued U.S. involvement and investment in this area we will be able to fulfill our international obligations and keep recovery of the ozone layer within our sights.

With continued worldwide vigilance, full recovery of the ozone layer is predicted to occur in 50 years. In the near term, however, exposure to UV radiation and the subsequent health effects of increased incidences of skin cancer and cataracts continues to be a very real problem. One American dies every hour from skin cancer and a mere one to two blistering sunburns can double one's chances of developing melanoma later on in life. With this knowledge, EPA created the SunWise Schools Program to teach children and their caregivers about sun safety. EPA expects to reach children in 17,000 U.S. schools by 2005.

We are proud of these achievements, but the job is not yet done. We have important work ahead of us such as the upcoming domestic phase outs of chemicals like methyl bromide (MBr) and hydrochloroflurocarbons (HCFC) while ensuring that sufficient amounts are available for critical and essential uses. The budget includes $10 million in EPA funding to help replenish the multilateral fund. Without a mechanism for facilitating developing country commitments to phaseout ozone depleting substances, we jeopardize recovery of the ozone layer, investments already made by U.S. industry in alternative technologies, and indeed the lives and health of Americans.

Reducing Risks from Air Toxics

Toxic air pollutants are pollutants known or suspected to present a threat of adverse human health effects such as cancer or birth defects, or adverse environmental effects. In order to control emissions of these pollutants, EPA since 1990 has issued 53 pollution standards affecting 89 industrial categories such as chemical plants, dry cleaners, coke ovens, and petroleum refineries. When fully implemented, these standards will eliminate nearly 1.5 million tons of air toxics and 2.5 million tons of particulate matter and smog-causing volatile organic compounds.

By contrast, in the preceding twenty years only seven hazardous air pollutant standards, eliminating 125,000 tons of toxics, had been put in place. Congress directed EPA to issue technology- and performance-based standards on a source category basis to ensure that major sources of air toxics are well controlled. In essence these standards create a level playing field by requiring all major sources to achieve the level of control already being achieved by the better performing sources in each category.

The result is that we are reducing the large quantities of toxic air pollutants released into our air, in the aggregate and around industrial sources in populated areas. We will achieve additional

reductions as we complete standards for more categories of major pollution sources. This approach is achieving substantial reductions in air toxics, but we recognize that it is not perfect; a drawback is that it focuses on the quantity of emissions while toxic pollutants vary substantially in the risk they pose. Congress gave EPA greater flexibility to target the greatest risks in the second phase of the air toxics program outlined in the 1990 amendments.

We are now in the early stages of implementing this second phase of the air toxics program, targeting particular problems such as elevated risks in urban areas, deposition of air toxics into the Great Lakes, and residual risks from already controlled sources. The underlying goal of this program is to improve air quality at the local, regional, and national levels while minimizing cost and reducing unnecessary burden on states and the regulated community. Achievement of this goal would ultimately result in reduced public risk from exposure to air toxics or other environmental threats.

Virtually all of the transportation-related control programs I discussed earlier reduce toxic emissions as well as emissions of NAAQS pollutants or their precursors. For example, compared to 1990 levels, the programs we have in place today for highway vehicles, including Tier 2 and the 2007 diesel rule, will reduce emissions of four gaseous toxic pollutants by about 350,000 tons by 2020, a 75 percent reduction. Diesel particulate matter (PM) from highway vehicles will be reduced by 220,000 tons over the same time frame, for a 94% reduction.

Improving Visibility in our National Parks and Wilderness Areas

Having lived a good portion of my life within sight of the Front Range, within an hour of Rocky Mountain National Park, I have a personal appreciation for the importance of protecting the beautiful vistas of our great land from visibility degradation.

Haze, created by fine particles and other pollutants, often degrades visibility across broad regions and obscures views in our best known and most treasured natural areas such as the Grand Canyon, Yosemite, Yellowstone, Mount Rainier, Shenandoah, the Great Smokies, Acadia, and the Everglades. Despite improvements in recent years in some areas, visibility remains significantly impaired. In eastern parks, average visual range has decreased from 90 miles (natural conditions) to 15 - 25 miles, and on some days, visibility is less than 10 miles. In the West, visual range has decreased from 140 miles to 35 - 90 miles. Visibility for the worst days in the West is similar to days with the best visibility in the East.

In July 1999, EPA published a long awaited regional haze rule that calls for long-term protection of and improvement in visibility in 156 national parks and wilderness areas across the country. Because haze is a regional problem, EPA has encouraged states and tribes to work together in multi-state planning organizations to develop potential regional strategies for the future. Five of these regional planning organizations are now operational. EPA will be working closely with these organizations to provide guidance during this process, just as it did with the many states and tribes involved in the Grand Canyon Visibility Transport Commission.

Over the next several years, states are required to establish goals for improving visibility in each of these 156 areas and adopt emission reduction strategies for the period extending to 2018. States have flexibility to set these goals based upon certain factors, but as part of the process, they must consider the rate of progress needed to reach natural visibility conditions in 60 years. To assist in evaluating regional strategies and tracking progress over time, we have continued to work with the states and federal land managers to expand our visibility and fine particle monitoring network to 110 of these areas.

One of these regional planning organizations is the Western Regional Air Partnership, or WRAP. The regional haze rule specifically takes into account the WRAP's efforts to develop and carry out a strategy for improving visibility in 16 scenic areas in the western United States. Currently, EPA is proposing to approve, and to incorporate into the regional haze rule, an element of this strategy that addresses stationary sources of sulfur dioxide. The WRAP's innovative approach establishes regional sulfur dioxide emissions targets, gives Western sources the opportunity to meet these targets through voluntary measures, and provides for an enforceable backstop emissions trading program that will ensure that the targets are met if the voluntary measures do not succeed.

EPA is moving forward to issue process guidelines for states to follow in implementing the Act's requirement for "best available retrofit technology," or BART, at certain older facilities that have been grandfathered from new source requirements under the Act. These older facilities emit large amounts, in the millions of tons, of visibility-impairing pollutants. For many, cost-effective control measures are available. EPA proposed these BART guidelines in July 2001 and we are looking to finalize them later this year. These guidelines will help States identify facilities subject to BART, and available methods for reducing their emissions.

III. Tools for Success

This history of clean-air success in concert with strong economic growth has been achieved through extensive stakeholder consultation, partnership with states, and use of a combination of tools that fit the range of air quality problems we face. Among these tools are national health-based standards, emissions limits, information, trading and economic incentives, voluntary programs, and hybrid approaches.

Most of these tools and approaches were regarded as innovative in 1990 when the Clean Air Act Amendments were passed, but today these are part of EPA's normal way of doing business. Today we are continuing to learn from experience and to improve air quality through regulatory and non-regulatory strategies. Three areas of emphasis include stakeholder consultation, market-based approaches and non-regulatory approaches.

Regulatory Tools

Increased Stakeholder Consultation

Perhaps the most visible of the new approaches adopted following the 1990 amendments is the early and continuing use of consultation as we develop regulations. Since then, the Agency has dramatically expanded its interaction with stakeholders. Consensus is not always attainable, of course. But the time and effort we put into communication and consensus-building pays off in better rules, and often in smoother implementation.

One of the first examples of stakeholder involvement was the Acid Rain Advisory Committee,

an intensive seven-month effort with stakeholders immediately after the 1990 Amendments that helped shape the rules for the successful acid rain program. This positive experience led to establishment of the Clean Air Act Advisory Committee, a standing group of several dozen experts from industry, the environmental community, states, academia and elsewhere. We seek the advisory committee's insights frequently.

EPA also establishes stakeholder advisory committees to advise us on specific air program issues as they develop. One example is a diverse stakeholder committee currently reviewing questions concerning our recently issued rule to reduce levels of sulfur in diesel fuel.

In addition to these formal processes, we have also engaged stakeholders in substantive, early discussions on many significant rulemakings long before they reach the proposal stage – for example, in developing rules to control emissions from heavy-duty trucks and buses. The National Low Emission Vehicle Program is another example of what can be achieved through consensus building with stakeholders when incentives for agreement exist.

Trading and Market-based Regulatory Programs

The second major reason for clean-air success over the years has been EPA's pioneering use of innovative, market-based regulatory approaches. EPA is proud of our increasing reliance on market-based tools, particularly cap and trade programs, to cut compliance costs, promote technology innovation and achieve early and extra environmental benefits.

Perhaps the most important lesson from implementing the 1990 amendments is how powerful a tool cap and trade programs can be for protecting health and the environment. When the acid rain legislation was under development, the proposal for a cap-and-trade approach was new, untested, and met with much skepticism. Many questioned whether it would deliver the promised environmental protection, whether the trading system would operate as advertised, and whether costs would be reasonable. Today, it is clear that the answer is a resounding "yes."

The acid rain trading program, because it was properly designed, has demonstrated many advantages relative to a command-and-control approach. The acid rain cap and trade program achieved reductions at two-thirds the estimated cost of achieving the same reductions without trading. The cap and automatic penalties for noncompliance ensure that the environmental goal is achieved and maintained. Trading and banking have allowed companies flexibility to choose compliance options and minimize costs. In 1990 EPA estimated that the price of an SO2 allowance (representing one ton of reduction) would be $625 in 2000 (in 2000 dollars) and some in the utility industry speculated that the price could be much greater, in the range of $1,500. In fact, the actual price of SO2 allowances in 2000 was $150. The cap-and-trade system has created financial incentives for electricity generators to look for new and low-cost ways to reduce emissions, and to do so earlier than required by law. As mentioned above, reductions in the early years averaged 25 percent below the required cap, resulting in early health and environmental benefits. The program has high accountability and transparency; electricity generators must have continuous emissions monitors to prove they have sufficient allowances

to match their actual emissions. The cap-and-trade system also has other advantages: The acid rain program enjoys nearly 100 percent compliance and only takes 75 EPA employees to run, and avoids lengthy permit reviews.

As I have mentioned, EPA is using this now-proven approach to address other significant problems such as regional ozone transport, and believes this approach should be the cornerstone of an integrated multi-pollutant approach toward future reductions in power plant emissions.

Beyond these flagship programs, EPA also continues to apply market principles more generally to find innovative ways to achieve more environmental protection at less cost. We have had great success with the emission trading program to protect stratospheric ozone, and we have provided averaging, banking, and trading opportunities in many national air rules for such industries as vehicle manufacturers and fuel refiners. Emissions averaging is also incorporated in national air toxics emissions standards for refineries, chemical plants, aluminum production, wood furniture and other sectors that use paints and coatings. We also have used other methods, including multiple compliance options, to help provide flexibility in air toxics rules.

In addition to providing flexibility in national rules through trading and other means, EPA is working with states to promote other flexible approaches to help achieve national air quality standards for smog, particulates and other criteria pollutants. These approaches -- including broader use of trading programs and voluntary measures in State Implementation Plans -- are becoming valuable alternatives in many areas where conventional approaches are reaching the limits of what can be achieved.

Improvements in Analytical Tools

Since 1990 we also have seen improvements in analytical tools that enhance our ability to analyze the benefits, costs and cost effectiveness of potential strategies to reduce air pollution. These tools help inform our policy and regulatory decisions.

These improvements have been achieved through dramatic increases in the quality and comprehensiveness of data used as inputs to our analyses and the speed and accuracy of the modeling systems used to analyze those data. Specific examples of these improved data sets and modeling tools include a new integrated criteria pollutant and hazardous air pollutant emissions inventory system called the National Emission Inventory (NEI); a significantly expanded fine particle monitoring network; a new, third-generation air quality modeling system called Models-3 which incorporates the new Community Multiscale Air Quality (CMAQ) model capable of integrated assessment of changes in tropospheric ozone, acid deposition, particulate matter, and visibility across the coterminous 48-states; and an integrated health effects and economic valuation modeling system called the Criteria Air Pollutant Modeling System (CAPMS).

EPA analyses have also benefitted greatly from major strides in the public health and economic literatures related to estimating the effects of air quality improvements. Important examples include the

Health Effects Institute (HEI) re-analysis of key PM mortality epidemiological studies and the development of dozens of new studies estimating the economic value of reductions in risk of premature mortality. All of these represent just a few examples of the many improvements in relevant literature, information systems, and analytical technologies achieved by EPA and our partners since 1990.

Non-Regulatory Tools

One important lesson we've learned over the last 12 years is how much environmental protection we can accomplish without regulating. We've had great success by giving people the information they need, working with them, and helping them work with each other to address pollution problems in their communities and businesses. EPA has a number of information-based or voluntary programs authorized by the Clean Air Act or funded through Clean Air Act grants.

EPA has developed several partnership programs with industry that were either explicitly laid out in the President's National Energy Policy, or are otherwise consistent with the policy direction therein. These include several new Energy Star efforts, Climate Leaders, the Combined Heat and Power Partnership, the Green Power Partnership, and Commuter Choice Leadership Initiative. Other voluntary partnerships with nonprofit organizations have fueled effective public outreach programs such as Tools for Schools, the Smoke Free Homes Pledge, and the "Fish Out of Water" asthma ad campaign.

Energy Star and Related Partnerships

In many cases, EPA has found that voluntary, information-based approaches are most effective when carried out in partnership with industries. Perhaps the most impressive example of this is the Energy Star program, which offers businesses and consumers energy-efficient solutions that save money while protecting the environment for future generations. The Energy Star program establishes national definitions for efficient products, homes and buildings that qualify to use the widely recognized Energy Star logo. It has succeeded in creating a national platform for efforts by manufacturers, governments and other partners to increase energy efficiency. In 2001 alone, the Energy Star program reduced energy consumption by 80 billion kilowatt hours, offset more than 10,000 megawatts of peak power, prevented 140,000 tons of nitrogen oxides emissions, and reduced greenhouse gas emissions by more than 16 million metric tons of carbon equivalent – the same as eliminating the emissions of 10 million cars. American businesses and consumers, with the help of Energy Star, are saving about $5 billion a year on their energy bills.

Building on our experience with Energy Star, we are now developing a series of additional partnership programs to provide significant energy savings and reduce emissions of NOx, VOCs, and greenhouse gases. The first of these is the Climate Leaders program, a government-business partnership that helps companies effectively manage their greenhouse gas emissions by providing them with new management tools and recognizing them for their success. In this program, companies pledge to achieve company-wide emission reductions in greenhouse gases over the next 5 to 10 years, and report on their progress. Two other partnership programs, built around energy production, are the Green Power Partnership and the Combined Heat and Power Partnership. These new voluntary programs are designed to reduce the environmental impact of electricity generation by promoting renewable energy and energy-efficient technology through technical assistance and public recognition.

Asthma Education

EPA has also taken a voluntary, information-based approach in helping to combat asthma, a disease which has grown to epidemic proportions in the United States, and one which is often triggered by indoor air pollution. While scientists do not fully understand what has caused the rise in asthma, outdoor air pollution and environmental contaminants commonly found indoors are known to trigger asthma attacks and in some cases, can even lead to the development of new cases of asthma. In response to this epidemic, EPA has joined with other Federal agencies including the Department of Health and Human Services and non-profit health organizations, to step up the national fight against asthma. With pro-bono help from the Advertising Council, in 2001 we launched a multimedia public-service advertising campaign to raise public awareness of the need to reduce exposure to indoor environmental triggers as part of a comprehensive asthma management plan. In the first six months of the campaign, we utilized over $30 million worth of donated media exposure in the form of TV, radio, and print advertising. EPA's program also is supporting other direct asthma education initiatives in schools, day-care centers, primary health care clinics and managed care organizations to promote comprehensive asthma management including preventing exposures to indoor environmental triggers.

Indoor Air: Tools for Schools

Beyond its asthma efforts, EPA also has applied voluntary, information-based approaches to indoor air quality problems more broadly. One especially important site where poor indoor air quality often causes health problems (including asthma) is the schoolroom. To help educators and the public make their schools more healthful for children and faculty, EPA has developed an Indoor Air Quality "Tools for Schools" (TfS) Kit to prevent or correct common indoor air quality problems. More than 9,000 schools across the US have voluntarily adopted the operation and maintenance practices in the TfS, and we are gaining momentum: the Chancellor of the New York City School System (1,200 schools serving 1.1 million children) has declared that all schools in NYC will implement TfS by the 2005-2006 school year. Several states have incorporated the key concepts into requirements for all their schools. EPA is placing special emphasis on promoting implementation of this voluntary guidance in states with large student populations. Texas, Florida, New York and California account for 32% of the students in the US.

Environmental Tobacco Smoke

Another serious indoor air problem is secondhand tobacco smoke, which causes hundreds of thousands of excess lower respiratory tract infections in young children each year, increases their risk of middle ear infections often requiring hospitalization, and worsens the condition of a million children with asthma. EPA is using a voluntary approach to address this serious issue through a sustained campaign to educate and motivate parents to protect their children by making their homes smoke-free. The initiative includes an award-winning national television, print, and radio media campaign which has resulted in over $15 million of donated air time.

AIRNow Program

In addition to these indoor-focused programs, EPA has also used voluntary, information-based approaches to help address outdoor air quality problems. To help citizens understand and

make decisions about their own personal exposure to high ozone levels, EPA has developed the AIRNow program which includes a web site to provide the public with easy access to air quality information, both local and national. Through the web site and national media, AIRNow provides daily air quality forecasts as well as real-time air quality for over 100 cities across the United States. AIRNow is one of the first environmental programs to deliver real-time data to the public in an easily understandable, color-coded, graphical format, similar to the color-coded warning program for homeland security. The animated air quality map and air quality forecasts give the public information they can use to make daily decisions about the air quality in their area. AIRNow also goes beyond the Internet to reach the broader public, with USA Today featuring AIRNow air quality forecasts and TV stations incorporating it into weather forecasts on national programs like the Weather Channel as well as local programs. Over the next several months, the program will be expanded to address particulate matter.

Commuter Choice

A new business-government partnership, called the Commuter Choice Leadership Initiative, focuses on reducing vehicle emissions and improving the way people get to and from work. EPA and DOT assist participating employers by offering technical assistance, public recognition, training, Web-based tools, and forums for information exchange. To participate, employers make a series of commitments, including ensuring a minimum level of employee participation and offering a series of commuter benefits. In return for offering these benefits, employers can reap the important benefits of helping to attract and retain employees, reduce the demand for limited or expensive parking, and exhibit leadership and corporate citizenship. Almost 300 companies, employing over 750,000 people, have joined the program since it was launched last year.

Community-Based Programs

Some of EPA's most innovative work comes by working with people in their communities at the local level. For example, the Ozone Flex program, started last year in Texas, offers increased regulatory flexibility to encourage state, local and tribal governments to make voluntary, early reductions of air emissions that form ground-level ozone. Another community-based program, the Cool Cities initiative, shows local governments how to reduce the polluting effects of heat buildup in cities, and offers them regulatory credit for doing so. This program began in Houston, Texas, and we hope that other cities will follow Houston’s lead and also join the Cool Cities program.

Another important new initiative is the Cleveland Air Toxics project, which is setting the stage for a new way to solve the problem of urban air pollution. We have assembled a group of community leaders who are building a sustainable, results-focused project that is a model for the entire nation. And the Cleveland pilot, for the first time, integrates our work across stationary, mobile, and indoor pollution sources. The approach bridges organizational barriers here at EPA and allows the community to address the issues they believe have the most impact on their lives.

IV. Today's Challenges

Reducing Fine Particles and Smog

Two of the greatest air quality challenges facing us today are reducing levels of fine particles and ground-level ozone (smog) to meet the more health protective air quality standards EPA issued in 1997 based on an exhaustive review of new scientific evidence on effects of these pollutants. Fine particles and 8-hour ozone levels appear to be of concern in many areas of California and across broad regions of the eastern United States.

On March 26, after years of litigation and a favorable Supreme Court decision, the U.S. Court of Appeals for the D.C. Circuit rejected all remaining legal challenges to both standards. The Administration vigorously defended the standards before the court.

As Administrator Whitman said last month, the court decision "is a significant victory in EPA's ongoing efforts to protect the health of millions of Americans from the dangers of air pollution. EPA now has a clear path to move forward to ensure that all Americans can breathe cleaner air." Now EPA will work in partnership with state, tribal and local governments to implement those standards.

We believe that fine particles pose the greatest public health risks of any regulated air pollutant. Fine particles are associated with tens of thousands of premature deaths per year in people with heart and lung diseases. Fine particles aggravate heart and lung disease, leading to increased hospitalizations, emergency room and doctor visits, use of medication, and many days of missed school and work. Fine particles have also been associated with respiratory symptoms such as coughing and wheezing and chronic bronchitis, as well as heart beat irregularities and heart attacks. And fine particles are a year-round problem.

Ozone smog also is a significant health concern, particularly for children and people with asthma and other respiratory diseases who are active outdoors in the summertime. Ozone can cause increased transient respiratory symptoms, such as coughing and pain when breathing deeply, as well as transient reductions in lung function and inflammation of the lung. Ozone has also been associated with increased hospitalizations and emergency room visits for respiratory causes. Repeated exposure over time may permanently damage lung tissue.

We are determined to move expeditiously to achieve the health benefits of the standards. However, there is some preliminary work that must be completed before we can designate areas under the new standards, which starts the clock on many implementation requirements.

Before the PM2.5 nonattainment areas can be designated, three years of data are needed to determine whether an area is not attaining the standard. We will have 3 years of quality-assured data beginning in the summer of 2002. It is difficult to project a precise schedule for designating PM 2.5

nonattainment areas, but I have asked my staff to determine how we can move forward expeditiously in light of the public health threat posed by fine particles. The Transportation Equity Act of 1998 requires states and EPA complete the process within two years after three years of monitoring data are available, or no later than December 31, 2005. Based on a preliminary two-year data set from 250 counties, more than 130 areas are expected to violate the annual standard. About 100 of these areas also appear to be not attaining the 8-hour ozone standard, and it will make sense for states to consider both ozone and PM in devising attainment strategies.

As we work with the states on fine PM designations, we also will be working with our governmental partners and stakeholders to develop an implementation strategy. In the East, high PM2.5 levels are attributed to regionally high sulfate and nitrate concentrations (primarily from power plants and motor vehicles) combined with local urban emissions of other pollutants. President Bush's Clear Skies Initiative to cut emissions from power generators through a cap-and-trade program can substantially reduce the number of areas with unhealthy levels of fine particles. Regional strategies and/or national rules should be the first step toward addressing sulfates and nitrates, particularly in the East. A number of already-adopted mobile source programs, such as Tier II standards for cars and light trucks, reduced sulfur in fuel, and standards for new heavy duty diesel engines, will also help reduce local emissions. However, additional local strategies will need to be developed for certain cities to address their particular mix of emissions sources also contributing to the problem. For example, a diesel engine retrofit program (e.g. for buses) appears to be one obvious local action that cities can take to protect the public from PM-2.5 health effects now.

8-Hour Ozone

We are actively working on several fronts to prepare the way for implementation of the 8-hour ozone standard. Because the Supreme Court ruled that EPA's original implementation strategy was unlawful, EPA is working with state and stakeholders to develop a new approach that will be adopted through rulemaking. The new approach will be proposed this summer and finalized a year after its proposal. We also are working to complete our response to the May 1999 remand from DC Circuit court concerning UVB radiation, and anticipate a final rule this year. EPA plans to designate areas for the 8-hour ozone standard no earlier than the end of 2003.

There are over 300 counties measuring exceedances of the 8-hr ozone standard. Existing EPA programs, including national motor vehicle programs and the NOx SIP call, are projected to help many of the new nonattainment areas meet the standard over the next few years. States and localities also will need to do their part to reduce emissions from local pollution sources.

Cost-effective strategies and technology advances

Under the Clean Air Act, both EPA and the States have responsibilities for developing regulations requiring pollution sources to reduce their emissions to help attain air quality standards. In both cases, cost is a key consideration, helping determine which pollution sources should reduce emissions, by how much, and on what timetable. As mentioned above, EPA develops national emission standards for large sources such as automobiles, powerplants, and factories. These rulemakings consider costs in a number of ways, from broad economic-impact studies to more specific

analyses of impacts on states, localities, and small businesses. Costs are also a central consideration to states and localities as they design their state implementation plans to achieve the additional reductions needed beyond those provided by EPA's rules. EPA works closely with regulated communities to obtain information on currently available and emerging control technologies and their estimated costs. EPA uses this information in developing its Federal rules, and it also makes such information available to states, localities, and industries to assist them in their planning.

A word should be said here about technological innovation and its role in projecting future costs of pollution control. As is the case for technology generally, air pollution control technology is developing so rapidly that it is difficult to predict very far into the future. We know based on experience that technological advances over the longer term will provide substantial help in meeting clean-air goals. But it is inherently difficult to estimate the amount of emissions reductions and cost savings that will be available five, 10, or 15 years from now through technological advances in numerous industries -- including advances that are entirely unforeseen today.

Our experience over the past 30 years, and the promise of cleaner technologies emerging today, strongly suggest that technological innovation will continue to produce new, cleaner processes and performance improvements that reduce air pollution at reasonable cost. The Clean Air Act itself has spurred such advances, as innovative companies have responded to the challenges of the Act with great success, producing breakthroughs such as alternatives to ozone-depleting chemicals and new super-performing catalysts for automobile emissions. We are continuing to promote such innovation through emission-reduction strategies that set clear emissions goals and then provide flexibility on the means of achieving them -- for example, through the kind of market-based approach in the President's Clear Skies proposal.

Protecting Our Environment and Resources

The same emissions that form fine particles and ozone, causing public health risks, also contribute to environmental and resource damage. One example is visibility degradation, which I already have discussed.

In addition, modeling results and recent studies of ecological response to emissions reductions under the Acid Rain Program indicate that Title IV is moving us in the right direction, but not far enough. For example, scientists in the Shenandoah National Park discovered the first observed disappearance of a fish population due to acidification. Researchers in that region claim that reductions of sulfate deposition of 70 percent or greater from 1991 levels are necessary to prevent further acidification of Virginia brook trout streams.

A recent assessment of acid deposition and its effects in the northeast by the Hubbard Brook Research Foundation reflects a similar finding. Researchers found no significant improvement in lake and stream water quality in the Adirondack and Catskill Mountains, even following recent decreases in acid rain. The study concluded that full implementation of the 1990 Amendments will not result in

substantial recovery in acid-sensitive ecosystems in the northeast. Instead, it concluded that further reductions of SO2 emissions from power generation are necessary to achieve recovery of aquatic ecosystems in this region.

Recent studies also demonstrate that nitrogen deposition is an increasing concern in many regions of the country. For example, EPA's recently released national coastal condition report found deteriorating water quality in many areas of the eastern U.S. and Gulf Coasts, much of it due to increasing nitrogen pollution. Other researchers have found symptoms of "nitrogen saturation" in forest ecosystems in diverse areas of the country, including the Front Range of the Colorado Rockies, forests in southern California, and forests along the Appalachian Mountain chain of the eastern U.S. As a result, forest soils lose nutrients, forests are less productive, and streams and lakes continue to get more acidic.

Taking into consideration the ongoing concern about acid deposition, President Bush's Clear Skies Initiative would address these problems by cutting emissions of SO2 and NOx from power generators through a cap-and-trade program.

Air Toxics Challenges

Two important air toxics challenges are elevated risks from the multiple toxic pollutants emitted into urban airsheds, and health risks from mercury, a persistent toxic substance that accumulates in the food chain.

Urban Air Toxics Strategy

Air toxics can pose special threats in urban areas because of the large number of people and the variety of sources of toxic air pollutants. Individually, some of these sources may not emit large amounts of toxic pollutants. However, all of these pollution sources combined can potentially pose significant health threats. Under the Clean Air Act, EPA is required to develop an Integrated Urban Air Toxics Strategy that addresses air toxics in urban areas, looking collectively at emissions from large and small industrial and commercial operations, on-road and off-road vehicles, as well as indoor air sources. We are also concerned about the impact of the toxic emissions on minority and low income communities, which are often located close to industrial and commercial urbanized areas.

We will also assist State, local, and tribal agencies in making their own assessments and decisions on risk strategies by providing them tools, guidance, and training, while continuing to develop national standards. We are also exploring new approaches for identifying flexible, less expensive methods for reducing emissions. In addition, to better understand local risk, we will collect and analyze data from on-going community projects to provide a centralized information database. We will also continue to participate in projects such as in Cleveland, Ohio. This integrated approach will allow EPA and state, local, and tribal governments the ability to cooperatively address specific risks and administer direct and cost efficient controls in specific "hot spots" or target areas.

Mercury

Mercury is a potent toxin that causes permanent damage to the brain and nervous system, particularly in developing fetuses, depending on the level of ingestion. Most exposure comes through eating contaminated fish. Currently 42 states have advisories warning people to limit or avoid intake of recreationally caught fish due to mercury contamination. Even so, almost 400,000 children are born each year to mothers whose blood mercury levels exceed the reference dose established by EPA, which builds in a margin of safety.

Recent actions to reduce mercury emissions from medical waste incinerators and municipal waste combustors are significantly reducing emissions of mercury. In fact, full implementation and compliance with medical waste incinerator and municipal waste combustor regulations will result in significant mercury emission reductions from these important sources. Power generation is now the largest uncontrolled source of mercury emissions, contributing approximately 35% of the total anthropogenic mercury emissions in this country. President Bush's Clear Skies Initiative would put a cap on mercury emissions from power generators.

V. The Future

Although the focus of this hearing is Clean Air Act successes, not new legislation, I would like to take a brief moment to describe President Bush's Clear Skies Initiative. The President believes Clear Skies is the best way to address the most serious of the challenges I have just described. The initiative builds on the tremendous success of the Acid Rain Program, using its cap-and-trade model as its foundation. The President's proposal sets mandatory caps on emissions from power generators, and gives facilities the opportunity to comply through trading, which provides compliance flexibility, cost savings, and incentives for technology innovation.

Under the Clear Skies Initiative, all Americans will benefit from cleaner air as emissions of the major pollutants from power generation (SO2, NOx and mercury) are reduced by roughly 70 percent. The President's proposal will dramatically reduce the number of areas with unhealthy levels of fine particles, and provide health benefits to tens of millions of people. An integrated approach, Clear Skies will reduce all the concerns associated with regulated pollutants from power plants across the nation, including fine particles, ozone, mercury contamination, acid rain, nitrogen deposition and visibility impairment. As a result, we will see thousands fewer premature deaths, millions fewer incidences of aggravated asthma and respiratory symptoms, and reduced risk of childhood illness. Clear Skies is a clear winner for the American people.

Thank you. I would be happy to answer any questions that you may have.